



Centre for Bioscience and Nanoscience Research
Affiliated to Bharathiar University
ISO 9001: 2015 CERTIFIED

Accredited by



2022 ANNUAL REPORT



Visalakshi Educational Trust

461/3, Amman Nagar, L&T BY Pass Road, Eachanari,
Coimbatore-641 021, Tamilnadu, India

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Annual Report -2022

Centre for Bioscience and Nanoscience Research

(Affiliated to Bharathiar University), ISO 9001:2015

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Ms. Abhirami V - Microbiologist

Ms. Vishnu Priya. R- Biotechnologist

CBNR

Centre for Bioscience and Nanoscience research (CBNR) was founded in 2010 under Visalakshi Educational Trust, Coimbatore. The goal of CBNR is to render a common platform for the biologists to interact with each other mutual benefit and providing high quality research facilities in various disciplines of life sciences. It has been certified by ISO (9001-2015) for its infrastructure and facilities. It is affiliated to Bharathiar University, Coimbatore and it presently offers full time / part time M. Phil. and Ph.D. programs in Microbiology and Biotechnology.

CBNR has well-furnished laboratory with modern automated equipments to carry out research works under the effective guidance of many distinguished scientists in worldwide. Our key research area is Bio-prospecting of polymer products-based Nanoscience, Food Nano-biotech, Industrial Nanoscience and Agriculture and Medical Microbiology. The current strength of CBNR comprises of two regular research supervisors, 3 faculty members, eight PhD scholars, and a technical assistance. CBNR has taken a different route to embark upon quality training. We aim at delivering innovative and customized training for the special needs of students of Biological Sciences, B.Tech., M.Tech., B.Sc., M.Sc., B.Pharm., M.Pharm., M.Phil., Ph.D., PDF and all fields of life sciences.

Vision and Mission Statement

Our motto is “Towards Excellence”

CBNR is a Centre for higher learning in the life sciences, provides all areas of academic and industrial need through research and development at **affordable cost to the students**. We aimed to develop the skills that are necessary to the students and research scholars in the field of life sciences, enable them for the placements and affinity towards the subject.

Accreditations

- Affiliated to Bharathiar University to conduct M. Phil. And Ph.D. in Microbiology and Biotechnology

- ISO 9001:2015 CERTIFIED
- MSME Approval
- BCIL Certification

Highlights of CBNR

- More than 86 gene sequences submitted to NCBI
- More than 90 papers published in National and International Journals
- Conducted 25 workshops & 3 Faculty Development programme
- **9 MoU with leading colleges / Industry support for the placement**
- 50 students got placement so far
- Acquiring latest Knowledge by hands-on training and research experience & exposure to the research field
- **Fee concession and free training for the merit & economically weaker students**
- Experienced research scientist / Eminent visiting scientists from industry and academia.
- Enrichment scientific knowledge / panel discussion with scientists
- Completed one project on Edible fruit coating

Laboratory facilities

We are equipped with the state of art facilities for pursuing research in the current thrust areas of Life sciences. We have separate labs for Microbiology, Animal cell culture, Bionanotechnology, Molecular biology and Bioprocess, with state of art laboratory facilities on par with RD centers.

Research Collaboration

CBNR collaborates with a number of National academic institution and industry to achieve the Research goals. There are number of eminent scientists who are the mentors or collaborators in our research projects. We encourage any research which can help the general humankind and are open to collaborate with the individuals and agencies with similar aim.

Benefit to the Society

Now a days there is a decline in number of students opting the bioscience courses due to lack of awareness and available of minimal number of technically skilled persons in the field. So we aimed to create awareness among undergraduate and post-graduate students in universities, colleges etc. on issues related to importance of Microbial biotechnology & its potential applications. The recent and continuing advances in life sciences clearly unfold a scenario energized and driven by the new tools of Microbial biotechnology. Microbial Biotechnology is a knowledge-driven technology, which needs to be driven by allow of new ideas and concepts in the development of new tools for research to generate green environment.

Area of Research work carried out in CBNR

- Molecular Biology/ rDNA technology /Medical Molecular Microbiology
- Bio nanotechnology – Synthesis of Silver/ Gold / CNTs nanoparticles and its textile/medical applications
- Plant Biotechnology/ Ethanobotany
- Microbial enzyme technology / Bioremediation / Food Science
- Agricultural/ Food Microbiology/ Biotechnology / Bio preservative
- Environmental Biotechnology / Aquatic stress management
- Microbial diagnosis using rDNA technology / Plasmid mediated
- Protein Engineering / All types of Bioinformatics work
- Bioactive compounds/ antioxidant/ characterization from Herbal plants/ Microbes / Phytochemistry
- Animal cell culture / cancer biology
- Herbal drug formulation
- Nanoparticle synthesis using biopolymer, biomolecules etc.

Report 2022 (January to December-2022)

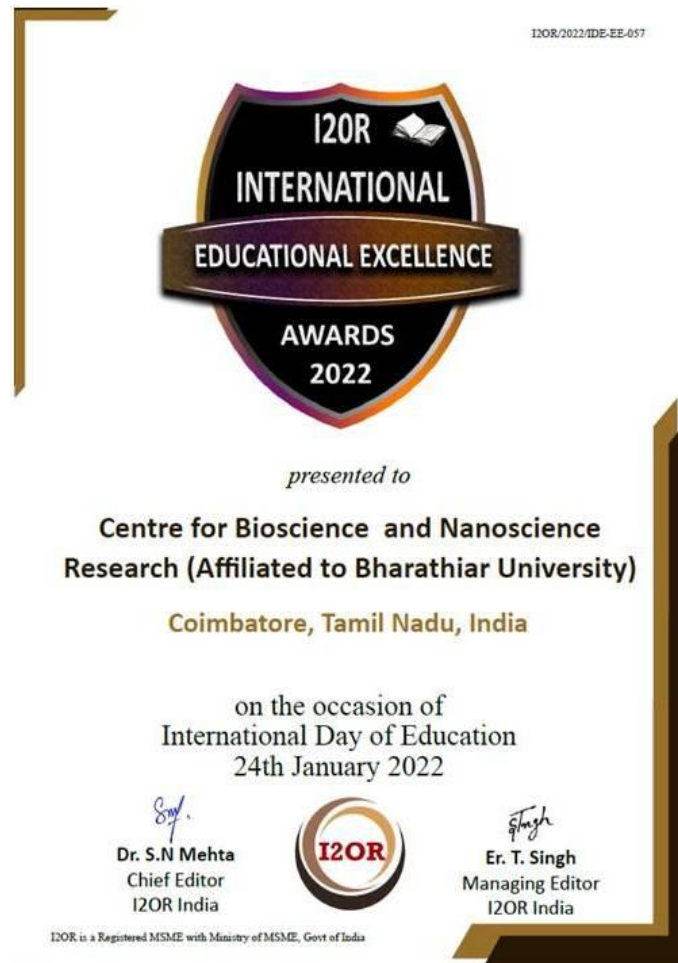
A total of 22 different programmes were conducted in the year of 2022, more than 436 number of students, research scholars, teaching and non teaching staffs were attended and benefited. In detail a total of two MOUs were signed, and conducted a technical training for the lab assistants, national level online internship, research review meeting, national conference, one day international seminar and workshops. The highlight of the year was CBNR is certified for ISO 9001-2015 also and awarded I2OR International award for the Educational Excellence.



Achievements of the Research Institute

Award – I2OR International Educational Excellence Award

Centre for Bioscience and Nanoscience Research received an International Educational Excellence Award on 24th January 2022 from I2OR New Delhi.



BIQS, ISO9001-2015 certification

- The inspection commission from BIQS, ISO9001-2015 certification was on 9.9.2022 and certified for the coming three years.



BIQS

Certificate of Registration

This is to certify that compliance of Quality Management System of

CENTRE FOR BIOSCIENCE AND NANOSCIENCE RESEARCH

No. 461/ 3, Amman Nagar,
L & T Bye Pass Road, Eachanari,
Coimbatore - 641 021, Tamilnadu, India.

has been assessed and found to conform the requirements of

ISO 9001 : 2015

For the scope of activities :

Providing Quality Training in Industrial Skills, Research Activities in Different Disciplines of Life Science

Certificate No. : QMSI/RE/318	Initial Issue Date : 28.12.2019
ANAS-BNR Accreditation No: ID918	Re-Certification Date : 09.09.2022
	Valid Date : 27.12.2025

Surveillance Audit : 2nd Year 27.12.2023

3rd Year 27.12.2024

The certificate is valid only if the annual surveillance mark is present.

For and on behalf of Bureau of International Quality Standard

[Signature]
Head of Certification

Quality Seal

Bureau of International Quality Standard Pte. Ltd
Blk 464, Choa Chu Kang, Avenue -4, #02-29, Singapore-680 464, www.biqs.org
Accredited by : ANAS - BNR (American National Accreditation Services - Bureau of Notified Registrar)
2711 Centerville Road, Suite 400, Wilmington, Delaware, 19808 (U.S.A.)

The Registrar does not assure the quality of goods under the firm's production.

ANAS-BNR ACCREDITED CERTIFIER

Memorandum of understanding

- CBNR has signed MOU with Department of zoology, Sri GVG college, Udumalpet, Tamilnadu, in order to improve the practical skills in the field of Microbiology and molecular biology on 16.03.2022.



- CBNR has signed MOU with department of health science, Nirmala college, Kerala in order to improve the practical skills in the field of Microbiology and Food microbiology on 16.12.2022.



Research Review meeting

- Research Review meeting for the Ph.D research scholar was conducted on 10.6.2022 at Johnas salk seminar hall, all the research scholar of Department of Biotechnology and Microbiology was participated and presented their research findings. Dr.R. Selvakumar was acted as Resource Person from PSG institute, Coimbatore, Dr.R.Ragunathan Director and Dr.K.Thangamariappan Scientist E from Centre for Bioscience and Nanoscience Research were valuated the research works of the students.



Workshops conducted in CBNR

- Workshop was conducted (28.09.2022) for the students from the department of food processing, Krishnammal College for Women coimbatore. 40 students were participated along with three staffs.

KCW Food processing students (Workshop)



Conference

- 4th National Conference was conducted in Dr. Johnas Salk seminar hall on 15.9.2022. 92 participants were attended the conference from all over India which includes BS.c, MS.c, research scholars and teaching faculties and scientist.

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4th National Conference on Innovative Research in Life Sciences
 (NCIRL 22) 15 and 16, September 2022
 Venue: Dr. Johnas Salk Seminar Hall, CBNR

Chief Guest and Key Note Address
Dr. M. Palaniswamy
 Registrar,
 Karapagam Academy of Higher Education,
 Coimbatore - 21, India.

Invited Speaker
Dr. Jayaraman Rajangam
 Professor & HOD, Department of
 Pharmacology, Sree Vidyanikethan
 College of Pharmacy,
 Tirupathi-517 102, A.P.

Invited Speakers

Dr. P. Rama Bhat
 Prof. & Head,
 Dept of Post Graduate Studies and
 Research in Biotechnology,
 Niva's College, Moodindri- 574 227,
 Karnataka, India.

**Dr. Natarajaseenivasan
 Kalimuthusamy**
 Prof. Dept. of Microbiology, BDSU, Trichy
 and Visiting Scientist, Natural Sciences,
 Lewis Katz School of Medicine,
 Philadelphia, USA.

Dr. S. Krishnapriya
 Professor & Head,
 AAA College of Engineering and Tech-
 nology, Sivakasi, Tamilnadu.

**Mr. Muddukrishnaiah
 Kotakonda**
 Senior Research Fellow-ICMR,
 Faculty of Technology, Anna University,
 Central Institute of Brackishwater Aquaculture,
 Chennai.

Organizing Committee

Dr. R. Raguathan
 Director and Research Supervisor,
 CBNR, Coimbatore - 21.

Dr. K. Thangamarriyapan
 Scientist E, Department of Microbiology,
 CBNR, Coimbatore - 21.

Other Members (CBNR)
Abirami N
Abirami V
Mhoneesa T
Research Scholars of CBNR

Conference Theme:

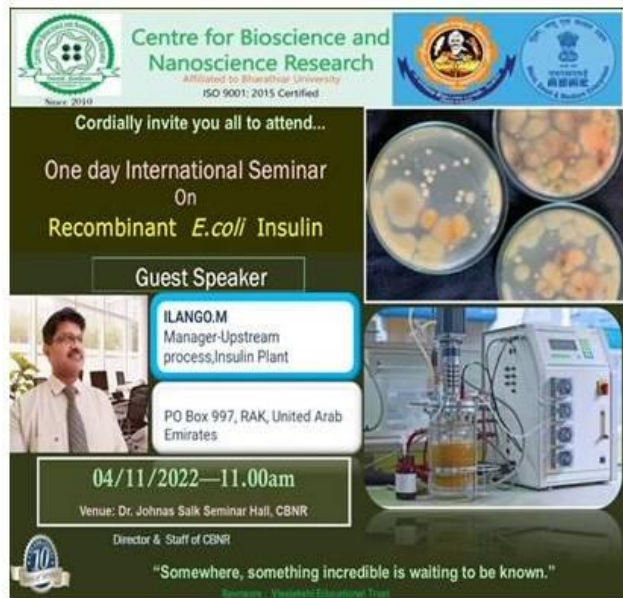
- * Mystery behind Probiotic Bacteria
- * Recent trends in Life Sciences
- * Microbes in Civil Engineering
- * Marine Bioactive Compounds
- * Bionanotechnology
- * Ethnopharmacology
- * Emergence of Multidrug Resistant Bacteria
- * Neuronal Health in Brain

All are Cordially Invited



International seminar

- Conducted a International Seminar on Recombinant *E.coli* Insulin on 4.11.2022. Mr. Ilango M, manager, insulin unit UAE, was deliver the lecture, and more than 55 students were participated.



The poster is for a seminar organized by the Centre for Bioscience and Nanoscience Research (CBNR), affiliated to Bharathiar University. It features the university's logo and ISO 9001:2015 certification. The text reads: "Cordially invite you all to attend... One day International Seminar On Recombinant *E.coli* Insulin". The guest speaker is identified as ILANGO.M, Manager-Upstream process, Insulin Plant, with contact information: PO Box 997, RAK, United Arab Emirates. The event is scheduled for 04/11/2022 from 11.00am at the Dr. Johnas Salk Seminar Hall, CBNR. A photograph of a laboratory setup with a fermenter and petri dishes is included. At the bottom, there is a quote: "Somewhere, something incredible is waiting to be known." and the name of the trust: "Somewhere - Vivekananda Educational Trust".



Auspicious celebration/ Awards

Republic Day

74th Republic Day was celebrated on 26th January 2022 at CBNR campus.

Independence day celebration

To mark the 75th Diamond Jubilee Independence Day Celebrations of India's freedom, The National Flag was hoisted by the Director along with Chairman, Staffs, research scholars and other dignitaries along with students on 15th Aug 2022.



Onam celebration

Onam was celebrated at the institute premises on 05th September 2022. Staffs and students are participated and celebrated.



Saraswathi Pooja Celebration

Saraswathi Pooja has been celebrated in the presence of chairman, director and other staff members on 5th October 2022.

Guest Lecture / Classes

- Dr.R.Ragunathan, Director of Centre for Bioscience and Nanoscience Research gave a guest lecture on Nano Science and its Applications for the students of Department of Biotechnology, Karpagam Academy of Higher Education Coimbatore on 04/01/ 2022.




- Industrial Training for the CBNR Students was conducted on 14/03/2022 More than 50 students from various department was attended Mr. S.Sankar from Green Stock Holdin Limited Coimbatore was handled the session regarding production of Biofertilizer and its Marketing.



- Ms. Jesteena Johney and Dr.R.Ragunathan, Centre for Bioscience and Nanoscience Research gave a lecture to the students from various department on Concept of Quality Safety and Food Law (6.4.2022).




- Dr.R.Ragunathan, Director of Centre for Bioscience and Nanoscience Research handled a session on Entrepreneurship Development for Faculty of Arts and Science, Commerce and Management Students of Karpagam Academy of Higher Education, Coimbatore on 20 April 2022.




KARPAGAM ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
(Established Under Section 3 of UGC Act, 1956)
(Accredited with A+ Grade by NAAC in the Second Cycle)
Eachanari Post, Coimbatore – 641021, Tamil Nadu

Centre for Entrepreneur Development
Cordially invites you all for the
Seminar on "Entrepreneurship Development"
for
FACULTY OF ARTS, SCIENCE, COMMERCE AND MANAGEMENT Students



Session I
Dr.V.CHANDRASEKAR, Ph.D.,
Director - "BIOLINE Research Institute"
SITRA, Coimbatore - 641 014
Theme: "Opportunities for Life Science Graduands
in Entrepreneurial Journey"
Time: 09.30 am to 10.30 am



Session II
Dr.R.RAGUNATHAN, Ph.D., FSAB.,
Director and Research Supervisor
"CENTRE FOR BIOSCIENCE AND NANOSCIENCE
RESEARCH (CBNR)" - Coimbatore-641 021
Theme: "Research Strength will take you as an Entrepreneur"
Time: 02.00 pm to 03.00 pm

Venue: Central Library (E- Library Hall) Date: 20.04.2022

- Students from Sri Sankara Arts and Science College, Enathur, Kancheepuram came for an industrial visit on 28/04/2022, 40 students and two faculty members are attended and benefited. Dr.R.Ragunathan, Dr. K.Thangamariappan and Ms.Jesteena Johney from Centre for Bioscience and Nanoscience Research were handled the sessions.



- Department of Biochemistry, MGR College, Hosur, conducted Guest lecture on the topic of Bioscience Research and Opportunities in Industry on 16th May 2022, Dr.R.Ragunathan, Director, Centre for Bioscience and Nanoscience Research acted as resource person.



- Ghana Society of Biomedical Engineers in Collaboration with All Nations University Biomedical Engineering Department conducted 3rd National Biomedical Engineers Conference on 2nd and 3rd of June 2022. Dr. R. Ragunathan, Director of Centre for Bioscience and Nanoscience Research gave a lecture for the same.



- Dr. R. Ragunathan, Director of Centre for Bioscience and Nanoscience Research gave a guest lecture on Nano Science and its Applications for the students from the Department of Biotechnology, Microbiology and Food Processing Technology and management, Hindustan College of Arts and Science, Coimbatore on 29 July 2022.



- Dr.R.Ragunathan, Director of Centre for Bioscience and Nanoscience Research, acted as resource person for the National seminar on Strategic changes of IPR in the field of Biotechnology, Department of Biotechnology and Biogeneclub and Incubation cell , AJK College of Arts and Science, Coimbatore on 20/10/ 2022.

AJK COLLEGE OF ARTS AND SCIENCE
An ISO 21001:2018 Certified Institution
Affiliated to Bharathiar University, Coimbatore
Approved by Govt. of Tamil Nadu, Recognized by UGC, New Delhi Under Section 2(f) and 12(B)
Palakkad Main Road, Nellikulam, Coimbatore, Tamil Nadu-641 100
www.ajkcas.com
Ph: 0422 - 3501700

ACCREDITED WITH GRAD A+ NAAC

Department of **Biotechnology**
Biogeneclub & Incubation Cell
Jointly Organizes
National Level Seminar on

STRATEGIC CHANGES OF IPR IN THE FIELD OF BIOTECHNOLOGY

20/10/2022
@ 10:30 AM
Venue: Nanjil Hall

Resource Person
Prof. Dr. R. RAGUNATHAN
Centre for Bioscience and Nanoscience Research, Coimbatore

- CBNR has conducted a one day workshop come industrial visit for the Department of health science, Nirmala college, Kerala in order to improve the practical skills in the field of Microbiology and Food microbiology on 16.12.2022.



- CBNR has organised a Job/Higher Studies in Abroad for B.Tech Biotech Intern Students on 26.12.2022, Ms.V .Abirami Staff Trainee was handled the session.

 **CBNR, Presents**
Eachanari, Coimbatore - 21

**Topic : Job / Higher studies in
Abroad for B.Tech Biotech
Intern Students**

**College : KalaignarKarunanidhi
Institute Of Technology**

**Guest : Ms. V. Abirami
Staff, Trainee, CBNR**

Date : 26/12/2022 **Time : 10:00 am**



- An interaction Session with MSc Project students from Various college for the Academic Year 2022 (8.6.22, 24.8.22, 13.10. 2022, 15.11.22)



Industrial Visit

- From the Department of Food Technology, Sree Sakthi Institute of Engineering and Technology, Tamilnadu has visited CBNR for One day on 17-11-22, more than 47 students and 2 faculty members came and learned the instruments operations.

Research Scholars achievements

Sl.No	Scholar name and Department	Name of Conference/Seminars	Date and venue	Title of the paper
1.	Brinda C.M, Department of Biotechnology	Fourth National conference on innovative research in life sciences	15 & 16 Sep-2022/ Centre for Bioscience and Nanoscience Research (CBNR) Coimbatore	Diversity and Distribution of potential Biosurfactant producing <i>Bacillus sp</i> MN 243657, GC - MS analysis and its antimicrobial study .
2.	V.K.Linima, Department of Biotechnology	4 th National conference on Innovative Research in Life Sciences	15 and 16, September 2022, Department of Biotechnology, CBNR, Coimbatore	Green synthesis of <i>Lawsoniainermis</i> mediated iron nanoparticles and its antifungal activity
3.	Geethu Suresh, Department of Biotechnology	International conference on advancements in Bioscience, Bioprospecting, Bio-medicine and Bio entrepreneurship	09-05-2022, Virtual conference by Sri Ramakrishna College of Arts and Science	-
4.		National conference on Innovative Research in life sciences	15-09-2022, CBNR, Coimbatore	Biopulping of tender coconut fibre for production of hand made paper
5.		DBT sponsored National conference on innovations in Biomaterials and Bionanotechnology	10-11-2022, MGR college, Hosur	-

CBNR Research Achievements

Research Paper publication in National and International level – 10

NCBI Gene Sequencing submitted - 35

Distinguished Visitors at CBNR

Sl. No.	Date	Name and Address
1	15/09/22	Dr. J. Angayarkanni Associate Professor and Head Dept. of Microbial Biotechnology Bharathiar University, Coimbatore
2	15/09/22	Dr. Rama Bhatt P Professor and Head, PG Dept. of Biotechnology, Alva's College
3	16/09/22	Mr. K. Muddukrishnan Senior Research Fellow ICMR, Anna University, Chennai
4	02/11/22	Dr. Pawlin Vasanthi Joseph Associate Professor and Head Department of Zoology Nirmala College for Women, Coimbatore

